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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/635,802	08/11/2000	Byung-Jin Kim	2950-0167P	9232

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EXAMINER

TRAN, THAI Q

ART UNIT PAPER NUMBER

2616

DATE MAILED: 07/29/2004

[Handwritten mark]

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/635,802

Applicant(s)

KIM ET AL.

Examiner

Thai Tran

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because it has more than 150 words.

Correction is required. See MPEP § 608.01(b).

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

4. The claims in this application do not commence on a separate sheet in accordance with 37 CFR 1.52(b)(1). Appropriate correction is required in response to this action.

Claim Objections

5. Claims 18-21 are objected to because of the following informalities:

Regarding claim 18, line 1, "stroage" should be changed to --storage--.

Claim 19 is dependent on objected claim 18 and; therefore, inherit the deficiency thereof.

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Regarding claim 20, line 1, "stroage" should be changed to -storage--.

Regarding claim 21, line 1, "stroage" should be changed to -storage--.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 18-21 are rejected under 35 U.S.C. 101 because claims 18-21 are directed to a disk storage device containing data of a program recorded in a plurality of predetermined-sized packs. Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are neither physical "things" nor statutory processes. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory) and merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make it statutory. See MPEP 2106.IV.B.1.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 4-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Ozaki (US 5,818,547).

Regarding claim 4, Ozaki discloses a method for reading and transmitting data recorded in a disk recording medium (col. 6, lines 35-40), comprising the steps of:

- (a) reproducing a predetermined-sized pack recorded in the disk recording medium (col. 6, lines 35-40 and Fig. 4);
- (b) reading information on a recording position recorded in a header of the reproduced pack (reading pack header including Pack_Start_Code disclosed in col. 6, lines 41-43 and col. 2, lines 32-37);
- (c) reading time information for transport time reference recorded in a packet header of a transport packet located in a position indicated by the read position information (reading pack header including Program Clock Reference and packet header including PTS and DTS disclosed in col. 6, lines 41-43 and col. 2, lines 32-46); and
- (d) transmitting the transport packet located in the position indicated by the read position information on time specified by the read time information (reproducing data recorded on the DVD disclosed in col. 6, lines 44-50).

Regarding claim 5, Ozaki also discloses the claimed wherein the time information for transport time reference is equal to a program clock reference with should be contained intermittently in a data stream of broadcast program (PCR, PTS and DTS disclosed in col. 6, lines 41-43 and col. 2, lines 32-46).

Regarding claim 6, Ozaki discloses a method for reading and transmitting data recorded on a disk recording medium (col. 6, lines 35-40), comprising the steps of:

(a) reproducing a predetermined-sized pack recorded in the disk recording medium (col. 6, lines 35-40 and Fig. 4);

(b) reading recording position information and time information for transport time reference recorded in a header of the reproduced pack (reading pack header including Pack_Start_Code and Program Clock Reference disclosed in col. 6, lines 41-43 and col. 2, lines 32-37); and

(c) transmitting the transport packet located in a position indicated by the read position information on time specified by the read time information (reproducing data recorded on the DVD disclosed in col. 6, lines 44-50).

Regarding claim 7, Ozaki discloses a data recording method for a disk recording medium (Fig. 1 and col. 6, lines 20-34), comprising the steps of:

(a) recording transport packets in the disk recording medium while grouping several transport packets into a pack (col. 6, lines 37-37 and col. 2, lines 32-46); and

(b) writing time information for transport time reference for a transport packet, which is a pre-specified position in the pack, in a header of the transport packet (PCR, PTS and DTS disclosed in col. 2, lines 32-46).

Regarding claim 8, Ozaki discloses the claimed wherein the time information for transport time reference is equal to a program clock reference which should be contained intermittently in a data stream of broadcast program (PCR disclosed in col. 2, lines 32-46).

Regarding claim 9, Ozaki discloses the claimed wherein the pre-specified position is the first (pack shown in Fig. 4, col. 2, lines 32-46).

Regarding claim 10, Ozaki discloses a data recording method for a disk recording medium (Fig. 1 and col. 6, lines 20-34), comprising the steps of:

- (a) recording transport packets in the disk recording medium while grouping several transport packets into a pack (col. 6, lines 37-37 and col. 2, lines 32-46); and
- (b) writing time information for transport time reference for a transport packet, which is in a pre-specified position in the pack, in a header of the pack (PCR, PTS and DTS disclosed in col. 2, lines 32-46).

Regarding claim 11, Ozaki also discloses the claimed wherein said step (b) writes a program clock reference as the time information for transport time reference, if the transport packet at the pre-specified position contains the program clock reference which is specified to be included intermittently in a data stream by the digital broadcast standard (PCR disclosed in col. 2, lines 32-46).

Regarding claim 12, Ozaki discloses the claimed wherein the pre-specified position is the first (pack shown in Fig. 4, col. 2, lines 32-46).

Regarding claim 13, Ozaki discloses a method for reading and transmitting data recorded in a disk recording medium (col. 6, lines 35-40), comprising the steps of:

- (a) reproducing a predetermined-sized pack recorded in the disk recording medium (col. 6, lines 35-40 and Fig. 4);
- (c) reading time information for transport time reference recorded in a header of a transport packet which is in pre-specified position (reading pack header including Program Clock Reference and packet header including PTS and DTS disclosed in col. 6, lines 41-43 and col. 2, lines 32-46); and

(d) transmitting the transport packet located at the pre-specified position on time specified by the read time information (reproducing data recorded on the DVD disclosed in col. 6, lines 44-50).

Regarding claim 14, Ozaki also discloses the claimed wherein the time information for transport time reference is equal to a program clock reference which should be contained intermittently in a data stream of broadcast program (PCR disclosed in col. 2, lines 32-46).

Regarding claim 15, Ozaki discloses the claimed wherein the pre-specified position is the first (pack shown in Fig. 4, col. 2, lines 32-46).

Regarding claim 16, Ozaki discloses a method for reading and transmitting data recorded in a high-density disk recording medium (col. 6, lines 35-40), comprising the steps of:

(a) reproducing a predetermined-sized pack recorded in the disk recording medium (col. 6, lines 35-40 and Fig. 4); and

(d) transmitting the transport packet located at the pre-specified position in the reproduced pack based on time indicated by time information recorded in a header of the reproduced pack (reproducing data recorded on the DVD disclosed in col. 6, lines 35-50).

Regarding claim 17, Ozaki discloses the claimed wherein the pre-specified position is the first (pack shown in Fig. 4, col. 2, lines 32-46).

Regarding claim 18, Ozaki discloses a disk storage device (DVD disclosed in col. 6, lines 35-40), containing data of a program recorded in a plurality of predetermined-

sized packs (pack shown in Fig. 4), information on a recording position in a pack of a transport packet having time information for transport time reference being recorded in a header of the pack (pack header including Program Clock Reference disclosed in col. 2, lines 32-46), wherein the program data are composed of predetermined-sized transport packets (pack and packet in Fig. 4).

Regarding claim 19, Ozaki discloses the claimed wherein the time information for transport time reference recorded in the transport packet is further recorded in the header of the pack (PCR disclosed in col. 2, lines 32-46).

Regarding claim 20, Ozaki discloses a disk storage device (DVD disclosed in col. 6, lines 35-40), containing data of a program recorded in a plurality of predetermined-sized packs (pack shown in Fig. 4), transport time reference information for a transport packet located at a pre-specified position in a pack being recorded in a header of the pack (pack header including Program Clock Reference disclosed in col. 2, lines 32-46), wherein the program data are composed of predetermined-sized transport packets (pack and packet in Fig. 4).

Regarding claim 21, Ozaki discloses a disk storage device (DVD disclosed in col. 6, lines 35-40), containing data of a program recorded in a plurality of predetermined-sized packs (pack shown in Fig. 4), transport time reference information for a transport packet located at a pre-specified position in a pack being recorded in a header of the transport packet (PCR, PTS and DTS disclosed in col. 2, lines 32-46), wherein the program data are composed of predetermined-sized transport packets (pack and packet in Fig. 4).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozaki (US 5,818,547) in view of Yanagihara (US 5,850,501).

Regarding claim 1, Ozaki discloses a data recording method for a disk recording medium (Fig. 1 and col. 6, lines 20-34), comprising the steps of:

(a) inserting time information for transport time reference in transport packets at arbitrary intervals and recording the transport packets in the disk recording medium (PCR, PTS and DTS disclosed in col. 2, lines 32-46);

(b) identifying a transport packet in which the time information is inserted and detecting the recording position of the identified transport packet (Pack_Start_Code disclosed in col. 2, lines 32-46); and

(c) writing the detected recording position in the header of a pack which is composed of several recorded transport packets (Pack_Start_Code disclosed in col. 2, lines 32-46). However, Ozaki does not specifically disclose wherein the intervals are shorter than a time interval specified in a digital broadcast standard.

Yanagihara teaches that the digital program can be compressed so that the bit rate of the program can be increased and the amount of time required to transmit the program is reduced (col. 7, lines 20-32).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the capability of compressing the digital video program to be recorded as taught by Yanagihara into Ozaki's system in order to increase the storage capacity of the recording medium.

Regarding claim 2, Ozaki also discloses the claimed wherein said step (c) further writes the time information inserted in the identified transport packet in the header of a pack (pack header including Program Clock Reference disclosed in col. 2, lines 32-46).

Regarding claim 3, Ozaki discloses the claimed wherein the time information for transport time reference is equal to a program clock reference which should be contained intermittently in a data stream of broadcast program (pack header including Program Clock Reference disclosed in col. 2, lines 32-46).

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The cited reference relate to DVD player.

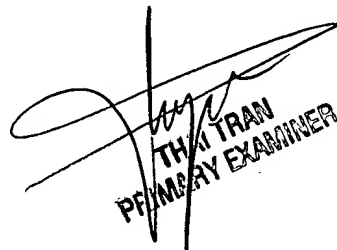
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai Tran whose telephone number is (703) 305-4725.

The examiner can normally be reached on Mon. to Friday, 8:00 AM to 5:30 PM.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTQ


THAI TRAN
PRIMARY EXAMINER